

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/651,598	FELISS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Craig A. Renner	2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to paper(s) filed 16 August 2007.
2. ☒ The allowed claim(s) is/are 1-11 and 25 (renumbered 1-12, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                                 |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|  | 9. <input type="checkbox"/> Other _____.  |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 August 2007 has been entered.

2. With the following examiner's amendment, independent claim 1 is generic and allowable over the prior art of record. Therefore, the restriction requirement set forth in the Office action mailed on 24 January 2006 has been reconsidered in view of the allowability of claims to the elected invention pursuant to MPEP § 821.04(a). **The restriction requirement is hereby withdrawn as to any claim that requires all the limitations of an allowable generic claim.** Accordingly, claims 2, 7, and 25, directed to one or more non-elected inventions/species, are no longer withdrawn from consideration because these claims require all the limitations of an allowable generic claim. However, claims 12-24, directed to one or more non-elected inventions/species, are withdrawn from consideration because they do not require all the limitations of an allowable generic claim.

In view of the above noted withdrawal of the restriction requirement, applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present

application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for the examiner's amendment to the claims was given in a telephone interview with Dominic M. Kotab on 20 September 2007.

4. The application has been amended as follows:

IN THE TITLE:

The title has been amended to read as follows:

--COMPOSITE DISK CLAMP ASSEMBLY WITH LOWER LAYER  
FIXEDLY COUPLED TO UPPER LAYER OF SMALLER DIAMETER--.

IN THE CLAIMS:

The claim listing has been amended to read as follows:

1. (Currently Amended) An assembly, comprising:  
a magnetic disk; and  
a composite ring engaging the disk, the composite ring comprising:  
an upper layer constructed of a material having a Young's modulus  
greater than or equal to a primary material of the disk; and  
a lower layer fixedly coupled to a lower surface of the upper layer without  
requiring external biasing thereagainst for the fixed coupling, the  
lower layer being constructed of a material having ~~similar~~ properties  
substantially the same as those ~~to that~~ of the disk, the properties  
being selected from a group consisting of a coefficient of thermal  
expansion, thermal conductivity and Young's modulus,  
~~wherein neither the upper layer nor a layer of a same material as the~~  
~~upper layer is positioned along a full extent of an area between the~~  
~~lower layer and the disk~~ a diameter of the upper layer is smaller  
than that of the lower layer, and the lower layer does not extend  
above an upper surface of the upper layer.
2. (Currently Amended) An assembly ~~composite ring~~ as recited in claim 1, wherein  
the upper layer has a Young's modulus between about 20 to about 250 GPa.

3. (Previously Presented) An assembly as recited in claim 1, wherein the Young's modulus of the upper layer is between about 60 to about 300 GPa.

4. (Previously Presented) An assembly as recited in claim 1, wherein the upper layer is constructed of a material selected from a group consisting of chrome, titanium, nickel, stainless steel and composites thereof.

5. (Previously Presented) An assembly as recited in claim 1, wherein the lower layer has a thermal expansion of between about 1 and 25 ( $10^{-6}/^{\circ}\text{C}$ ).

6. (Previously Presented) An assembly as recited in claim 1, wherein the lower layer is constructed of a material selected from a group consisting of aluminum and glass.

7. (Currently Amended) An assembly composite ring as recited in claim 1, further comprising a middle layer fixedly coupled between the upper and lower layers.

8. (Previously Presented) An assembly as recited in claim 1, wherein the layers are coupled together via mechanical bonding.

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9. (Previously Presented) An assembly as recited in claim 1, wherein the layers are coupled together by an adhesive.

10. (Previously Presented) An assembly as recited in claim 1, wherein the layers are coupled together at a molecular level.

11. (Previously Presented) An assembly as recited in claim 1, wherein a ratio of the Young's modulus of the upper layer to the Young's modulus of the lower layer is between about 1 and 5.

12-24. (Cancelled).

25. (Currently Amended) A magnetic storage system using the assembly of claim 1, the magnetic storage system comprising:

the magnetic disk media coupled to a spindle using the composite ring;  
~~of claim 1;~~

at least one head for reading from and writing to the magnetic media disk, each head having:

a sensor; and

a write element coupled to the sensor;


a slider for supporting the head; and

a control unit coupled to the head for controlling operation of the head.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Craig A. Renner  
Primary Examiner  
Art Unit 2627

CAR